Applicant: Preiss et al. Attorney's Docket No.: 12754-059001 / 2000P07569US01

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## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

- 1. (Currently amended) A processor for use in a Voice over Internet Protocol (VoIP) telephone, comprising:
  - a bus;
  - a processor core coupled to the bus;
- a packet handler coupled to the bus, the packet handler including plurality of first ports for interfacing to one or more workstations;
- a voice handler coupled to the bus, the voice handler including at least one second port for interfacing to a telephone;
- a cell/frame handler coupled to the bus, the cell frame handler adapted to couple to one or more packet networks; and
- a peripheral control processor coupled to the bus for handling interrupts and <u>direct</u> memory access (DMA) requests.
- 2. (Currently amended) A processor according to claim 1, wherein the packet handler includes a bus bridge for interfacing to the bus, a 10/100bT interface, a wireless <u>local area network (LAN)</u> interface, a Universal serial bus interface, and a home phoneline networking alliance interface.
- 3. (Currently amended) A processor according to claim 2, wherein the voice handler includes a bus bridge for interfacing to the bus, one or more <u>pulse code</u> modulation (PCM) ports, a mailbox, and a <u>digital signal processor</u> (DSP) core.
- 4. (Currently amended) A processor according to claim 3, wherein the cell/frame handler includes:

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a frame handler for sending and receiving frames over the one or more packet networks:[[,]]

an <u>asynchronous transfer mode</u> (ATM) <u>cell</u> handler for sending and receiving data over ATM networks;[[,]] and

an encryption unit for encrypting the data.

5. (Currently amended) A method for providing a Voice over Internet Protocol (VoIP) processor comprising:

providing a bus;

providing a processor core coupled to the bus;

providing a packet handler coupled to the bus, the packet handler including plurality of ports for interfacing to one or more workstations;

providing a voice handler coupled to the bus, the voice handler including at least one port for interfacing to a telephone;

providing a cell/frame handler coupled to the bus, the cell frame handler adapted to couple to one or more packet networks; and

providing a peripheral control processor coupled to the bus for handling interrupts and DMA requests.[[;]]

- 6. (Original) A method according to claim 5, wherein providing the packet handler including providing a bus bridge for interfacing to the bus, a 10/100bT interface, a wireless LAN interface, a Universal serial bus interface, and a home phoneline networking alliance interface.
- 7. (Original) A method according to claim 6, wherein providing the voice handler including providing a bus interface for interfacing to the bus, one or more PCM ports, a mailbox, and a DSP core.
- 8. (Currently amended) A method according to claim 7, wherein providing the cell/frame handler including:

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providing a frame handler for sending and receiving frames over one or more packet networks:[[,]]

an ATM <u>cell</u> handler for sending and receiving data over ATM networks;[[,]] and an encryption unit for encrypting the data.

- 9. (Original) A telecommunications system, comprising:
- a local area network;
- a workstation;
- a telephone; and
- a Voice over Internet Protocol interface coupling the telephone and the workstation to the local area network, the VoIP interface including a VoIP processor, the VoIP processor including
  - a bus,
  - a processor core coupled to the bus,
- packet handler coupled to the bus, the packet handler including plurality of ports for interfacing to the workstation,
- voice handler coupled to the bus, the voice handler including at least one port for interfacing to the telephone,
- cell/frame handler coupled to the bus, the cell frame handler adapted to couple to the local area network, and
- peripheral control processor coupled to the bus for handling interrupts and DMA requests.
- 10. (Original) A telecommunications system according to claim 9, wherein the packet handler includes a bus bridge for interfacing to the bus, a 10/100bT interface, a wireless LAN interface, a Universal serial bus interface, and a home phoneline networking alliance interface.
- 11. (Original) A telecommunications system according to claim 10, wherein the voice handler includes a bus interface for interfacing to the bus, one or more PCM ports, a mailbox, and a DSP core.

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12. (Currently amended) A telecommunications system according to claim 11, wherein the cell/frame handler includes:

a frame handler for sending and receiving frames over the one or more packet networks;[[,]]

an ATM <u>cell</u> handler for sending and receiving data over ATM networks;[[,]] and an encryption unit for encrypting the data.

13. (Original) A method of providing a telecommunications system, comprising:

providing a local area network;

providing a workstation;

providing a telephone; and

providing a Voice over Internet Protocol interface coupling the telephone and the workstation to the local area network, the VoIP interface including a VoIP processor, the VoIP processor including

a bus,

a processor core coupled to the bus,

a packet handler coupled to the bus, the packet handler including plurality of ports for interfacing to the workstation,

voice handler coupled to the bus, the voice handler including at least one port for interfacing to the telephone,

a cell/frame handler coupled to the network, the cell frame handler adapted to couple to the local area network, and

a peripheral control processor coupled to the bus for handling interrupts and DMA requests.

14. (Original) A telecommunications method according to claim 13, wherein providing the packet handler including providing a bus bridge for interfacing to the bus, a 10/100bT interface, a wireless LAN interface, a Universal serial bus interface, and a home phoneline networking alliance interface.

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15. (Original) A telecommunications method according to claim 14, wherein providing the voice handler includes providing a bus interface for interfacing to the bus, one or more PCM ports, a mailbox, and a DSP core.

16. (Currently amended) A telecommunications method according to claim 15, wherein providing the cell/frame handler includes:

providing a frame handler for sending and receiving frames over one or more packet networks:[[,]]

an ATM <u>cell</u> handler for sending and receiving data over ATM networks; and an encryption unit for encrypting the data.

- 17. (New) A processor according to claim 1, wherein the bus is a flexible peripheral interconnect bus.
- 18. (New) A processor according to claim 1, wherein the processor core is a microcontroller having two pipelines that support integer and load/store operations, and a third pipeline that supports optimized digital signal processor loop operation.
- 19. (New) A processor according to claim 1, wherein the peripheral control processor is a programmable, interrupt-driven microcontroller for data transfer and peripheral control, and includes instructions for DMA and bit handling.